



ASSESSMENT OF NUTRITION AWARENESS AND BEHAVIOURAL PATTERNS AMONG RURAL COLLEGE-GOING STUDENTS OF UTTAR PRADESH, INDIA

*Paridhi Agrawal¹, Prof. (Dr.) Uma Joshi²

¹ Ph.D. Research Scholar, Department of Home Science, Vidyavati Mukand Lal Girls College, Ghaziabad, India (Corresponding Author)

² Professor, Department of Home Science, Vidyavati Mukand Lal Girls College, Ghaziabad, India

ABSTRACT

Sustainable nutrition focuses on creating healthy eating practices and an environmentally friendly diet. Environmental sustainability and human health are both affected due to the increasing rate of global warming every day. Awareness and literacy of sustainable nutrition are crucial for the environment and essential for an optimal diet that is accessible to everyone and available for the current and upcoming generations. The awareness and knowledge about sustainable nutrition among rural communities remain understudied. This study was conducted in the rural college of Bulandshahr, Uttar Pradesh, India. After accepting the participant's consent form, 150 college students between the ages of 18-23 years were selected as a study sample. Results of the study showed that a high number of participants were not familiar with the term of sustainable nutrition. Most of the students did not include fruits and vegetables in their diet due to a high consumption of processed food items. The conclusion of the study is to target educational interventions in rural areas to increase awareness about sustainable nutrition among individuals.

KEYWORDS: Sustainable Nutrition, Environmental Sustainability, College Students, Educational Intervention

INTRODUCTION

Sustainable nutrition is defined by the Food and Agriculture Organization and the World Health Organization as "dietary behaviors that have low environmental effect and pressure; are easily accessible, affordable, safe, and equitable; promote all dimensions of an individual's health and well-being; and are culturally acceptable" (FAO & WHO, 2019). Prioritizing sustainable eating habits is necessary because they have minimal environmental effect and safeguard our health (Peker & Gunal, 2023). Sustainable nutrition mainly focuses on the diets that focus on the consumption of colorful fruits and vegetables from various sources, prioritizing locally available seasonal foods, and avoiding food waste that will significantly reduce environmental impact, improve global nutritional health, and preserve the food resources for the upcoming generations (Guillaumie et al., 2020).

Sustainable nutrition has become more important in recent years due to global warming, climate change, excessive use of resources, greenhouse gas invasions from production activities, and other factors (Terzi & Ersoy, 2022). In April 2016, the United Nations Decade of Action on Nutrition (2016–2025) was created to eradicate all forms of malnutrition. Its programs and strategies emphasize promoting a healthy diet and developing sustainable food systems (UNSSCN, 2017). The unique challenges faced by rural areas in implementing and continuing these behavioral practices are difficult. The women who are attending the college are an important group in this region because their literacy can develop a positive impact on their communities, and they can overcome the behavior gap regarding sustainable nutrition. The study aims to assess the

sustainable nutrition awareness and dietary behavior of the rural college students.

MATERIALS AND METHODS

This study was conducted in the Siyana tehsil of the district of Bulandshahr, Uttar Pradesh. The sample of the study was rural college-going students aged 18–23 years old. 150 participants were selected after receiving the consent form. In this study, sociodemographic characteristics were asked. For socio-demographic data, gender, age, class, food habits, social category, religion, and family type were asked by the participants. A self-developed questionnaire was used for sustainable nutrition awareness and behavioural questions. A total of 15 questions were asked by the participants. The statistical tools used in the study include simple frequency distribution and percentage. The collected data was analyzed and tabulated by the use of SPSS version 21.

RESULTS

The Results of the study showed that the frequency of participation of male and female students was 82 (54.6%) and 68 (45.3%), respectively. Based on age category, the highest participation of the students was under the age of 19 years (28.0%). Most of the participants were from the 1st year of the graduation program remaining followed by 3rd and 2nd years. The number of vegan food habits was high. 47.3% subjects come under the general category. 39.3% and 13.3% belonged to the OBC and SC categories, respectively.

The Hindu religion was found to be followed by a high number of subjects. There are 9 subjects followed Sikh religion: 2

female and 7 male students, and only 1 girl followed Jainism. The nuclear family was found to be the dominant family type. 60.6% of the subjects belonged to the nuclear family type. The remaining subject belonged to the joint family. The information about the sociodemographic characteristics has been presented below in Table 1.

Sociodemographic characteristics	Category	Total n (%)
Gender	Male	82(54.6)
	Female	68(45.3)
Age	18	30(20)
	19	42(28)
	20	25(16.6)
	21	29(19.3)
	22	16(10.6)
	23	8(5.3)
Graduation	1st year	64(42.6)
	2nd year	32(21.3)
	3rd year	54(36)
Food habits	Vegan	70(46.6)
	Ovo-vegetarian	14(9.3)
	Non-vegetarian	66(44)
Social category	General	71(47.3)
	OBC	59(39.3)
	SC	20(13.3)
Religion	Hindu	83(55.3)
	Muslim	57(38)
	Sikh	9(6.0)
	Jain	1(0.6)
Family type	Joint / Extended	59(39.3)
	Nuclear	91(60.6)

Table 1. Distribution of college students based on demographic characteristics (n = 150)

Sustainable awareness and behavioural patterns responses given by the college students were illustrated in Table 2. In total, 58% of the subjects had not heard about sustainable nutrition; among these, 39% were female and 48 % were male. A similar number of students believe that their eating patterns were appropriate and not appropriate for sustainability. The participants who were taking a non-vegetarian diet think that animal food did not affect environmental sustainability. According to the findings of the study, a total of the sample size 30% of students prefer conventional food items better. The high number of male participants (59.7%) agrees that food production affects the environment. The behavioural patterns of the subjects regarding sustainable food habits are found to be higher in females, in contrast to male students. The prevalence of buying seasonal fruits and vegetables among females and males was 77.9% and 67.0%, respectively. The practice of avoiding wastage during cooking among females was 72% and among males it was 30.4%. The female students (82.3%) were more concerned about checking the food labels. A total

of 48% participants included colorful food items in their diet. Only 18.6% students was not agreed to change their diet for environmental sustainability.

Questions	Male		Female	
	n (%)			
	Yes	No	Yes	No
Have you heard about sustainable nutrition?	34 (41.4)	48 (58.8)	29 (42.6)	39 (57.3)
Do you believe that your eating patterns are sustainable?	36 (43.9)	46 (56.0)	39 (57.3)	29 (42.6)
Do you believe that animal food affects the environment?	31 (37.8)	51 (62.1)	53 (77.9)	15 (22.0)
Do you think that organic food is better than conventional food?	53 (64.6)	29 (35.3)	52 (76.4)	16 (23.5)
Do you believe that food production impacts the environment?	49 (59.7)	33 (40.2)	28 (41.1)	40 (58.8)
Do you buy or eat seasonal fruits and vegetables?	55 (67.0)	27 (32.9)	53 (77.9)	15 (22.0)
Do you focus on avoiding food wastage during cooking?	25 (30.4)	57 (69.5)	49 (72.0)	19 (27.9)
Are you actively checking the food labels?	23 (28.0)	59 (71.9)	56 (82.3)	12 (17.6)
Do you include colorful foods in your meals?	29 (35.3)	53 (64.6)	43 (63.2)	25 (36.7)
Do you want to make changes in your diet to make it more sustainable?	63 (76.8)	19 (23.1)	59 (86.7)	09 (13.2)

Table 2: Percentage of responses by college students on sustainable awareness and behavioural patterns

DISCUSSION

The awareness about sustainable nutrition in rural regions is not widespread because 42.6% of females and 41.4% of males have not heard about sustainable nutrition. The notion of sustainable nutrition includes subdimensions related to health, the environment, culture, society, and economy. Due to global warming, this is a highly relevant topic for securing future generations, and it seems that it is poorly understood by individuals (Garcia-Gonzalez et al., 2020). A study has shown that young individuals are unaware of the nutritional consequences of environmental sustainability (Dornhoff et al., 2020; Willett et al., 2019). Similar to this study, the findings of this study show that 48.6% of the participants do not think that food production affects the environment. Buying and including different colors and seasonal fruits and vegetables in the diet

is more commonly approached by females compared to male students. During the college age, the food habit and lifestyle of the individual is most affected by the environment of the college. The consumption of fast food increased in this stage of life due to the shortage of time and sometimes stressful eating. The behaviour of females in checking food labels and including fruits and vegetables in their diet is higher compared to male participants because female students are more concerned about their body figure. Most of them want to make a change in their food habits to sustain the environment.

CONCLUSIONS

The findings of the study showed that in rural areas, increasing the awareness of sustainable nutrition is necessary because most of the individuals are not familiar with this term. For this, educational initiatives are imperative to change the behavior and increase knowledge among the communities. Future studies should focus on planning educational interventions to help adults improve their eating patterns and contribute to environmental sustainability. Also, evaluate the effect of the interventions in rural areas.

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